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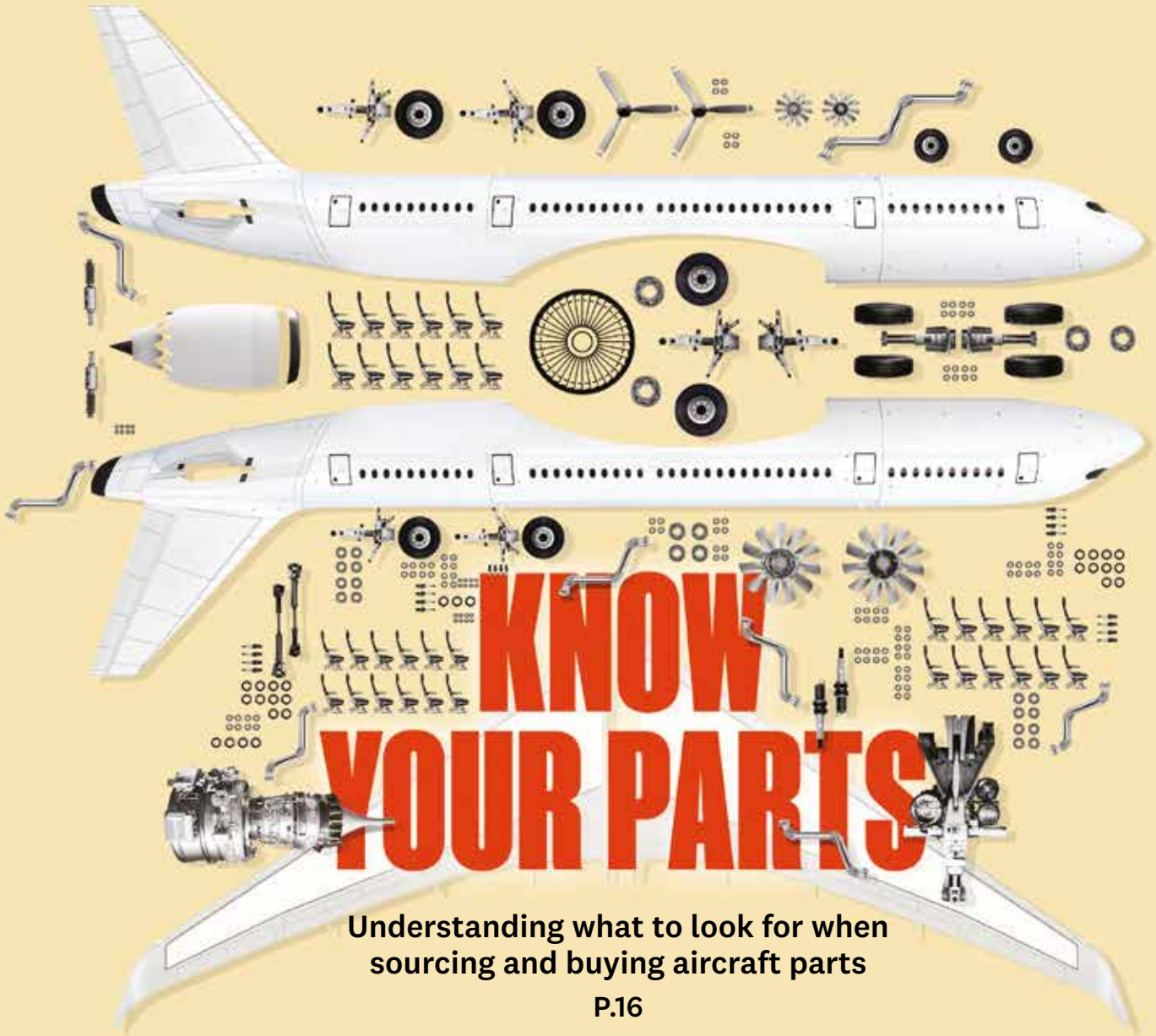
JULY 2025 • VOLUME 27 • ISSUE 5

Keeping the world's fleets flying

MRO Management



KNOW YOUR PARTS

Understanding what to look for when sourcing and buying aircraft parts

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Major deals dominate Paris Air Show
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Supporting accurate, efficient delivery, every time
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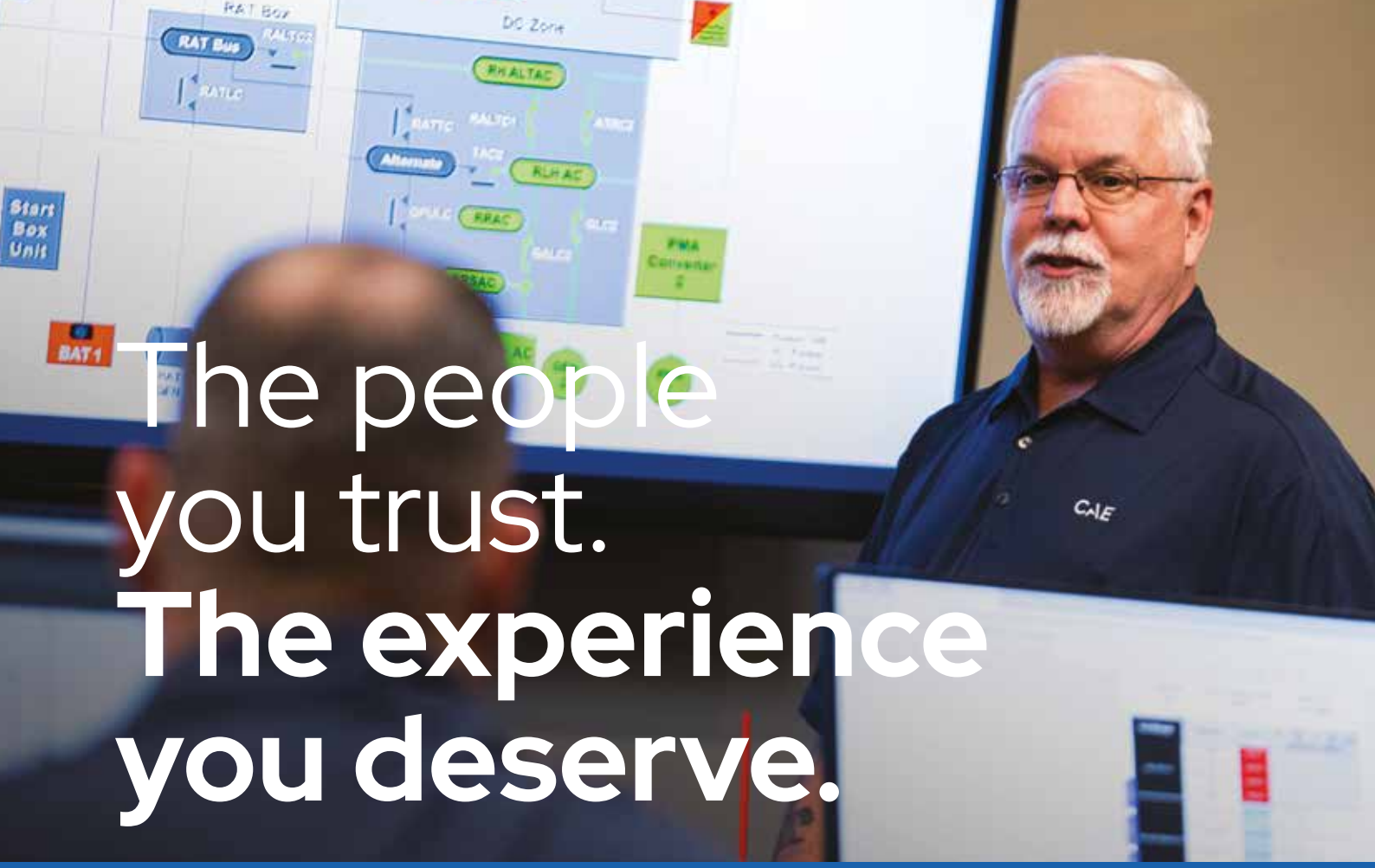

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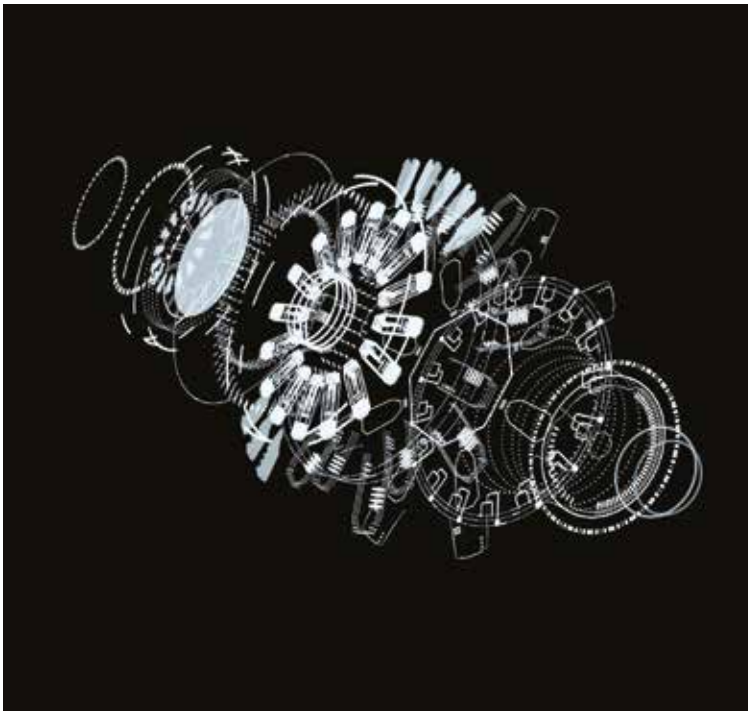

WELCOME...

As anyone in this industry knows, the difference between a compliant aircraft part and a questionable one often hinges on traceability. Knowing exactly what kind of approval stands behind a component – and being confident in its journey from production to point of installation – has never been more important.

With global fleets returning to full utilisation and supply chains still under strain, the spotlight is firmly back on what makes a part truly 'approved'. It's not always a straightforward question – and that's why this issue's cover feature from Jason Dickstein at the Washington Aviation Group is such a valuable read. Jason offers a clear, practical breakdown of the US parts approval system, covering everything from PMA and TSOA to production certificate parts. Even for those well-versed in the subject, it's a timely refresher.

The FAA recently reaffirmed the significance of the 8130-3 tag, also known as the Authorized Release Certificate, particularly within the framework of bilateral agreements. At the same time, there's wider recognition that not every part comes with one – or needs to – as long as it can be traced back to an FAA-approved production system and shown to be airworthy. Across the Atlantic, EASA is preparing updates to the Maintenance Annex Guidance (MAG), which could shift how dual-release parts are handled in cross-border maintenance.

What's clear is that parts provenance is once again a hot topic – and rightly so. The recent revelations about falsely documented engine components served as a sharp wake-up call. But it's the quieter, day-in, day-out vigilance from quality, procurement and maintenance teams that keeps the system working. In this environment, regulatory knowledge isn't a niche skill – it's essential.

Craig Waters
Editor
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VOLUME 27 | ISSUE 5 | JULY 2025

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Printed in the United Kingdom by Micropress.

PUBLISHED BY

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On the cover: Illustration by Phil Couzens

Hangar Talk.

News from across the industry

alfonsosm/Adobe Stock

DIGITALISATION

IAG rolls out AI system to streamline engine maintenance

International Airlines Group (IAG) has launched a new artificial intelligence (AI)-driven Engine Optimisation System designed to help engineering and maintenance teams across IAG's airlines make smarter decisions about when and how to service aircraft engines.

IAG claims that its new AI technology can run millions of possible maintenance scenarios and recommend the most efficient path forward. It streamlines planning by aligning maintenance windows with the availability of spare parts and other logistical requirements, reducing the risk of delays caused by missing components.

The system is already operational at Aer Lingus for managing CFM56 engine maintenance and is expected to roll out across all IAG carriers by the end of 2025.

IAG's Ben Dias said: "Transformation is at the heart of our overall business strategy and is powered by innovation including AI. By applying advanced algorithms, we're making our engine maintenance programme more efficient. We are avoiding unnecessary maintenance delays to ensure that our fleet is available and in service. The system gives our people the data and tools they need for smarter planning and better teamwork."

HANGARS/FACILITIES

flydubai breaks ground on new MRO centre at Dubai South

Dubai-based carrier flydubai has broken ground on its new multimillion-dollar aircraft maintenance centre at Dubai South, marking a strategic milestone in its expansion plans.

The 32,600 sqm facility is expected to be completed by the last quarter of 2026 and will feature an aircraft hangar, support workshops, and office buildings.

The airline says the development will allow for greater control over maintenance operations and faster turnaround times for its growing fleet. It is preparing to welcome over 120 Boeing 737 MAX aircraft over the next decade. flydubai currently operates a fleet of Boeing 737 aircraft and placed its fourth order for 30 Boeing 787 Dreamliners at the 2023 Dubai Air Show.

The new facility will be located near Al Maktoum International Airport (DWC), which is expected to become the world's largest airport upon completion. flydubai says the location in Dubai South – a growing hub for aviation and logistics – is ideal for supporting its long-term operational needs.

The airline's Ghaith Al Ghaith said: "Since launching operations in 2009, we have made great strides in enhancing connectivity and driving innovation, and the development of our new aircraft maintenance centre will play a key role in the next chapter of our growth journey."

flydubai has partnered with Group AMANA, a regional design-build specialist, to deliver the centre to international standards.

> **"Development of our new aircraft maintenance centre will play a key role in the next chapter of our growth**

BRIEFS

- Pula Aviation Services Limited has acquired JMI-Jet Maintenance International Limited, adding its London Oxford base and Biggin Hill line station to the group's UK footprint.

- BeauTech Power Systems has acquired 12 CF34-10E engines from Alliance Aviation, reinforcing its position as the largest lessor of this engine type and expanding support for E-Jet operators worldwide.

- AerFin has deepened its commitment to the global used serviceable material (USM) market with the acquisition of four A320neo aircraft in partnership with a Middle Eastern investor.

- Structural work is progressing on Bombardier's 51,000 sq ft paint facility at London Biggin Hill, set to open in H2 2026 and employ over 50 paint technicians.

- FedEx will be the launch customer for the first ATR 72-600 passenger-to-freighter conversion, which will feature a Large Cargo Door modification, set for delivery in December 2025.

- StandardAero recently celebrated the 20,000th engine induction at its Center of Excellence (COE) for Turboprop Engine MRO in Summerside, PEI, Canada.

IN NUMBERS

250

Around 250 new jobs will be created at Embraer's new Texas facility

10,000

TP Aerospace has a 10,000 sqm flag-ship facility in Brno, the Czech Republic

120

flydubai will take delivery of more than 120 Boeing 737 MAX aircraft over the next decade

WHEELS & BRAKES

SuperNova signs up TP Aerospace for wheels and brakes CFR support

TP Aerospace has signed a new long-term wheels and brakes Cycle Flat Rate (CFR) agreement with Ukrainian cargo operator SuperNova Airlines to support its upcoming B737NG freighter operation.

The agreement is already in effect and the airline is mainly serviced from TP Aerospace's 10,000 sqm flagship facility in Brno, the Czech Republic, which received its final EASA approval in December 2023.

SuperNova Airlines' Igor Lazniuk said: "We are excited to embark on this partnership with TP Aerospace. Their expertise and capabilities will be instrumental in ensuring the reliability and efficiency of our operations as we continue to grow; through the CFR programme solution we can get our requirements covered for our fleet."

Philip Broskov Hansen from TP Aerospace said: "This collaboration emphasises our commitment to providing top-tier support and solutions to our customers."

> **"This collaboration emphasises our commitment to providing top-tier support**

Embraer

HANGARS/FACILITIES

Embraer launches operations at new Texas MRO facility

Embraer has launched operations at its new commercial MRO facility at Perot Field Alliance Airport in Fort Worth, Texas, marking a major expansion of its US support infrastructure.

Developed in partnership with the City of Fort Worth and the State of Texas, the company has begun operations in an existing hangar, with construction of a second facility already planned. The second hangar is scheduled for completion in 2027.

The site will increase Embraer's customer support capacity across the US by 53% and represents a total investment of up to $70 million. The expansion is expected to create around 250 new aviation jobs in Texas.

The new Fort Worth centre becomes Embraer's 13th company-owned MRO facility globally, forming part of a wider support network of more than 80 authorised service centres worldwide.

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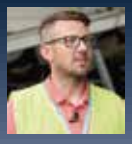

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TRAINING & DEVELOPMENT

Iberia opens hangar doors to promote aviation careers to young women

Iberia has hosted the latest edition of its initiative aimed at encouraging young women to consider careers in aviation.

Run in collaboration with CAE and Technovation Girls, the 'Quiero Ser' programme welcomed 35 females aged 14 to 18 for a day of immersive experiences in commercial aviation and aircraft maintenance.

Participants visited CAE's crew training centre, where they explored flight simulators used by airline crews. They also toured key Iberia Maintenance facilities – including the engine and component workshops, test benches and Hangar 6 – getting a close look at the daily work of pilots, aircraft maintenance technicians (AMTs) and engineers.

Now in its fourth edition, 'Quiero Ser' forms part of Iberia's wider diversity, equity and inclusion strategy, which aims to promote equal opportunities and highlight female role models in the aviation industry.

Iberia's María Bello said: "We firmly believe that inspiring vocations from an early age is key to building a more diverse future. It is deeply inspiring to see these young women drawn to professions where female representation has historically been lower. With the 'Quiero Ser' programme, we aim to do just that: open doors, spark vocations, and give visibility to lesser-known professions, partly due to the lack of role models."

> **"We firmly believe that inspiring vocations from an early age is key to building a more diverse future**

“Partnering with GMR Technic for base maintenance aligns with our commitment to maintaining the highest technical standards”

Belson Coutinho, co-founder and chief operating officer, Akasa Air

ACQUISITIONS

FL Technics boosts European capacity with JOB AIR Technic acquisition

FL Technics has signed an agreement to acquire JOB AIR Technic, a Czech-based MRO provider, marking a significant expansion of its maintenance capabilities in Central Europe.

The deal, which is subject to closing conditions including regulatory approvals, will give FL Technics access to a 17,000 sqm facility at Leoš Janácek Airport Ostrava.

JOB AIR Technic employs more than 400 specialists and operates two hangars with a total of eight bays, serving both narrowbody and widebody aircraft. Its services include base maintenance, avionics, structural repairs, composite work, emergency equipment servicing, non-destructive testing and cabin refurbishment.

FL Technics’ Zilvinas Lapinskas said: “JOB AIR Technic adds significant capacity to our group network and services portfolio. It enables us to immediately serve our clients with eight fully operational aircraft maintenance bays, eliminating a few years typically required for construction and certification.”

BASE MAINTENANCE

Akasa Air signs up GMR Aero Technic for 737 MAX C Checks

GMR Aero Technic has signed a three-year agreement to provide base maintenance support for Akasa Air’s Boeing 737 MAX fleet.

The scheduled base maintenance checks for the Indian low-cost airline will take place at GMR Aero Technic’s MRO facility located within the GMR Aerospace & Industrial Park in Hyderabad.

Akasa Air’s Belson Coutinho said: “We place utmost importance on the safety and reliability of our fleet. Partnering with GMR Aero Technic for base maintenance aligns with our commitment to maintaining the highest technical standards as we scale rapidly.”

Lufthansa Technik

TRAINING FACILITIES

Lufthansa Technik opens training hub in Portugal ahead of new facility launch

Lufthansa Technik has opened a new training centre in Santa Maria da Feira, Portugal, as part of its ramp-up toward launching a major production site in the region by late 2027.

Just 9km from the future facility, the centre will prepare new staff through classroom sessions and, soon, practical training led by instructors from its Hamburg headquarters.

The company has already hired 18 employees and aims to recruit 20 more by year-end.

The centre supports a wider investment in a 54,000 sqm site at Lusopark, where around 700 jobs will be created.

Volker Magunna from Lufthansa Technik said: “This milestone vividly demonstrates the pace and commitment with which we are advancing this major project. I’m excited about everyone who wants to shape and build Lufthansa Technik Portugal together with us.”

> **“I’m excited about everyone who wants to shape and build Lufthansa Technik Portugal together with us**

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Scan for info

"PAM is the leading event for staying at the forefront of predictive maintenance in aviation. It delivers real-world case studies, first-hand insights from seasoned practitioners, and valuable opportunities to connect with top experts in the field."

Rob Stolk, Project Manager, AFI KLM E&M

"It was a pleasure to be able to speak at PAM. My team and I were super impressed with the production of the conference and the associated events and it proved to be very worth our time."

Mike Roemer, Senior Manager, United Airlines

"PAM Dublin was an exceptional event, and I was honoured to present about aircraft health monitoring at SAS. Sharing insights on predictive maintenance alongside industry pioneers was inspiring. The focus on innovation and collaboration reinforced my belief in shaping the future of aviation safety and efficiency."

Matias Bjerregaard, PAM Specialist, Scandinavian Airlines

www.predictiveaircraftmaintenance.com

In the Spotlight.

The latest partnerships, appointments and innovations advancing the MRO sector

TEARDOWNS

AerFin has acquired four A320neo aircraft in partnership with a Middle Eastern investor, marking a major expansion of its used serviceable material (USM) offering.

The dismantling of the airframes, which were built in 2017, will boost parts availability amid growing global demand for cost-efficient, sustainable aftermarket support.

PEOPLE NEWS

Aircraft operating leasing company, BOC Aviation, has announced that Yogesh Farswani (pictured above) has been appointed as head of OEM strategy and procurement, replacing Alistair Greig who has retired.

Farswani will assume responsibility for the procurement department in addition to his existing responsibilities for engines. He will continue to report to chief operating officer Thomas Chandler.

PEOPLE NEWS

Shannon Engine Support (SES) has confirmed that Denise Mangan-Fahy (pictured below) will be its next chief executive, starting September 2025. She will succeed Julie Dickerson who is retiring after leading the spare engine leasing solutions business for more than a decade.

Mangan-Fahy has 35 years of aerospace experience, including senior roles at Shannon Aerospace and GECAS, where she rose to SVP of portfolio and rental operations.

PEOPLE NEWS

AFI KLM E&M has appointed Peter van Helden (pictured above) as senior vice president, component product, to lead the next phase of its global component services strategy.

Van Helden brings decades of experience in the aviation sector, with a strong background in OEM engagement, technical programme leadership and commercial development.

PARTNERSHIPS

Qatar Airways and Kenya Airways have signed an MoU to cooperate in MRO, aiming to share capabilities and drive efficiencies. The agreement is part of a broader partnership covering cargo, ground operations and procurement, with maintenance seen as a key area for mutual operational benefit.

DIGITALISATION

SmartLynx Airlines is marking 10 years of its paperless cockpit activity, introduced through the Electronic Flight Bag (EFB) programme. The move has modernised operations and saved over 30 million pages of paper – equal to more than 3,500 trees. The technology has streamlined pilot cockpit documentation processes and brought the airline in line with global aviation standards.

DIGITALISATION

Lufthansa Technik has expanded its digital services deal with Air Transat, which will roll out Aviatar across its Airbus fleet – making it the first North American airline to adopt the full Digital Tech Ops Ecosystem, including AMOS, flydocs, and Aviatar's predictive and analytical maintenance tools. Air Transat's Mario Lafrance said the deployment "represents another step towards transitioning to a paperless environment".

Markus Kampfer/Adobe Stock

PEOPLE NEWS

FL Technics has appointed Mazvydas Matazinskas (pictured above) as its new head of logistics and storage.

With over a decade of experience in the field, and having spent the past eight years within FL Technics' logistics department, Matazinskas will lead the company's global logistics strategy, overseeing implementation and driving further development initiatives.

TRENDING STATS

13

Embraer's new Fort Worth centre is its 13th company-owned MRO facility globally (from Hangar Talk, p.06)

100

Riyadh Air has signed a deal with Rolls-Royce for 100 Trent XWB-97 engines (from Paris Air Show Review, p.22)

50

Airhub Aviation has handled over 50 converted freighters (from Facilities/Capacity feature, p.36)

25,833

ecube has opened a new 25,833 sq ft facility in Castellón, Spain (from Green Sky feature, p.38)

Navigating US parts regulations

In the first of a two-part series, **Jason Dickstein** unpacks the US legal framework for approved aircraft parts and how to identify them

Unapproved parts. Bogus parts. Counterfeit parts. The list of what can go wrong in a parts transaction can be confusing; but if you have a good understanding of what the rules require for parts production and parts installation, then that is a good first step to understanding what you should be looking for when buying commercial aircraft parts.

Government approval

It is an international standard that those who wish to build aircraft and/or aircraft parts must have government approval. That sort of government approval typically comes in two forms: design approval and production approval.

In the US, there are several normal design approval mechanisms (as well as several important exceptions). The most commonly understood design approval is a type certificate. Type certificates are issued for aircraft, engines and propellers. In order to earn a type certificate, the applicant must produce a design, identify the relevant airworthiness standards from the regulations, and then produce data (often through testing) to demonstrate that the design meets each applicable airworthiness standard.

For example, there is an airworthiness standard in Part 25 that requires aircraft interior components to meet flammability requirements (for those of you following along in the home game, it is 14 C.F.R. § 25.583). This means that practically everything that goes into the interior must be tested to the flammability standards (and must pass those standards). Even seat cushions must be tested to the flammability standards.

> **“Components produced under a TSOA will typically be marked with the TSO number and the part number”**

JASON DICKSTEIN
president, Washington Aviation Group

Production certificates

Type certificate holders in the US will typically seek a production certificate to authorise manufacturing. To obtain a production certificate, the applicant must develop a production quality assurance system that will ensure that parts and products generated by the system will meet the approved design.

An FAA inspector will investigate the system – both the way that it is written and the way that it is implemented – to judge whether it will be successful in verifying that parts and products will meet the approved deign.

Since the FAA-approved design was already confirmed to meet the airworthiness standards, the combination of a design and production approval together tells us that parts and products generated under this system will meet the FAA's airworthiness standards.

If you want to produce an aircraft part (instead of a complete aircraft, engine or propeller), then you typically need to obtain a Parts Manufacturer Approval (PMA) or a Technical Standard Order Authorization (TSOA). Both approval mechanisms feature (a) a design approval, and (b) a production approval, in a single approval.

Parts Manufacturer Approvals

A PMA is obtained in a manner very similar to the approach for a type certificate/production certificate. The applicant must identify the applicable airworthiness standards and must also demonstrate compliance to those applicable standards. Typically, this is done in the context of one or more existing products for which the PMA part will be 'eligible'.

These eligible installations are not exclusive – an operator may use engineering data to demonstrate eligibility on another product, and the PMA holder can always provide compliance data to the FAA to expand the list of eligible installations. But there is always at least one eligible installation listed in the PMA supplement that is issued by the FAA.

There are several strategies for this showing of compliance in a PMA application. This showing can be accomplished through test-and-computation demonstrations of compliance. But test and computation can include showing identicality to a known compliant design. This means that one way to prove compliance is to reverse engineer the PC part and demonstrate that the PMA replacement part is physically the same (and thus complies with the regulations the same way).

When purchasing PMA parts, the part should be marked with a part number and the phrase 'FAA-PMA'. There is an allowance under the regulations for small parts that cannot be reasonably marked – typically the packaging for those parts will be marked instead of the PMA part.

Technical standard order authorisations

A technical standard order authorisation (TSOA) is issued as a design and production approval for a component – just like the PMA – but there are some key differences.

First, TSOAs are based on technical standard orders (TSOs). A TSO is typically a performance standard for a specific type of component. For example, there are a few TSOs for aircraft seats (each addresses a different type of seat); there are also several TSOs for avionics components. TSOs are usually issued for components that tend to have cross-platform eligibility: for example, a radio that is manufactured under a TSOA may be subject to installation on many different

aircraft. Because of this, the basic TSOA does not include any inherent eligible installations.

This is another difference from a PMA, because a PMA always includes at least one eligible installation. Because TSOAs do not include any eligible installations, the installer must demonstrate eligibility upon installation. There are many ways to accomplish this, such as STC (for major changes to type design), field approval, etc.

Components produced under a TSOA will typically be marked with the TSO number and the part number. The markings will also identify the TSO holder and will include either a serial number or the date of manufacture of the component.

Typical documentation for approved parts

PC parts, PMA parts and TSOA parts are all examples of 'approved parts' under the US system. When they are produced by the holder of an FAA production approval, the production approval holder is typically permitted to have a programme that allows it to issue 8130-3 tags for those parts. Older parts that pre-date the change in the regulations are less likely to have 8130-3, and there are some US production approval holders that appear to still refuse to issue 8130-3 tags for new parts.

> **"When purchasing PMA parts, the part should be marked with a part number and the phrase 'FAA-PMA'"**

Where a part was released from a production approval holder's quality system with other indicia of production approval, such as a C of C verifying it was produced under a production approval, this often represents adequate evidence that the part was airworthy when it was released from the FAA-approved production quality assurance system, and can be used as a baseline for confirming current airworthiness. The installer will need to confirm current airworthiness which often includes confirming that the part has not suffered damage or degradation since it was released from the FAA production approval system.

A properly credentialed FAA designee can typically use production approval holder documentation as the starting point for the analysis that can lead to issue of an 8130-3 tag (as with installers, the FAA designee also needs to confirm that the part has not suffered damage or degradation since being released from the FAA production approval system).

Thus, while a 8130-3 has become normal over the past 25 years, it is not available for every part and there are alternative documents that adequately demonstrate airworthiness in the US system.

It is important to note that non-US systems may specifically require 8130-3 tags based on bilateral agreements between the FAA and the foreign airworthiness authority. In recent years, US-based repair stations with EASA 145 privileges have needed to obtain 8130-3 tags for many replacement parts because of the agreements between the FAA and EASA (this is expected to change slightly in the next revision to the FAA-EASA Maintenance Annex Guidance).

In my next article in *MRO Management*, we will continue this analysis by discussing other categories of parts, including standard parts and parts produced in the course of maintenance.

As a reminder, US-based repair stations with EASA 145 privileges will need to implement voluntary SMS programmes to retain their EASA 145 credentials. We published useful articles on SMS in past issues of *MRO Management*. If this is causing you some concern, then feel free to contact Washington Aviation Group about strategies for implementing an SMS that provides safety value without overwhelming your business.


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REIMAGINING COLLABORATION FOR A RESILIENT FUTURE

As the aviation industry accelerates into a new era of growth and operational complexity, Aeras Aviation's **Demetrios Bradshaw** sees the upcoming MRO Europe 2025 event as a pivotal opportunity for reflection and recalibration

> "At Aeras Aviation, we believe progress is built on shared ambition"

DEMETRIOS BRADSHAW
chief executive, Aeras Aviation

With global fleets expanding, leasing models evolving and pressure mounting on supply chains and talent, the way we maintain aircraft must adapt just as quickly.

At Aeras Aviation, we see MRO Europe not simply as an exhibition – it's a platform for shaping what comes next.

This year, as official exhibitors and hosts of a dedicated client and partner event at Stand 1842, we're entering the conversation with a clear intention: to help drive smarter, more connected maintenance strategies for a resilient aviation future.

Building supply chain agility, not just efficiency

For years, MRO operations leaned heavily on just-in-time logistics and single-source solutions to optimise costs. But those systems are now straining under volatility. Lead times are longer, parts availability less predictable and pricing more variable than ever.

The answer isn't to wait for stability – it's to design for agility. This means embracing alternative sourcing, investing in real-time visibility and creating stronger, more strategic supplier relationships. Digital platforms and predictive analytics will be key enablers – but only if we adopt shared standards and a willingness to collaborate across traditional boundaries.

True resilience doesn't come from redundancy alone. It comes from trust, transparency and a readiness to innovate together.

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Technical talent as a strategic priority

Labour challenges across aviation are well-documented, but the core issue isn't just a shortage of people – it's a misalignment between training models and the evolving demands of the aircraft we service.

Modern fleets are more digitally integrated and technically complex. Technicians need a hybrid skillset that blends mechanical expertise with systems thinking and digital literacy. At Aeras Aviation, we believe in modular,

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1. Aeras Aviation collaborates with partners during engine teardowns to deliver cost and time savings
2. Aeras Aviation is headquartered in Dubai, UAE, with locations in the UK, US and Turkey
3. Aeras Aviation believes in continuous learning to allow its personnel to grow with technology

3

> **Operators, OEMs, lessors and MRO providers must rethink how they partner, plan and invest**

continuous learning frameworks that allow personnel to grow with the technology – and we know we can't do it alone.

Solving this challenge requires broad, cross-industry collaboration. Regulators, educators and employers must come together to create new pathways and reframe the appeal of MRO careers. The industry's future depends on our ability to attract and retain top technical talent – and to treat that talent as our most valuable asset.

Lessors as active orchestrators

As specialists in mid-life aircraft and engine strategies, we've witnessed a notable evolution in the role of lessors. Increasingly, lessors are no longer passive stakeholders – they are actively managing aircraft through maintenance cycles, lease transitions and end-of-life events.

With this shift comes both pressure and potential. Tighter turnaround expectations, diverse regulatory landscapes and rising costs make technical efficiency a must. Yet, lessors are also uniquely positioned to promote standardisation, data transparency and process consistency across fleets and geographies.

MRO Europe 2025 provides a forum to strengthen these connections. By working more closely with MROs and operators, lessors can help reshape how value is defined – not just in financial terms, but in technical integrity and long-term asset performance.

What we're bringing to MRO Europe 2025

At this year's event in London, Aeras Aviation is proud to exhibit and host (Stand 1842) a dedicated networking and insight-sharing session. We'll be showcasing our capabilities in engine support, asset management and end-of-life solutions – but more importantly, we're creating space for meaningful conversations.

Whether it's exploring creative approaches to maintenance financing, integrating ESG considerations into teardown or comparing best practices for transitions, our aim is to foster open, practical dialogue that benefits all sides.

We're not just there to talk – we're there to listen, collaborate and move the conversation forward.

A more connected future for MRO

Sustainable growth in MRO won't come from incremental gains alone. It requires collective action – across functions, across borders and across business models. Operators, OEMs, lessors and MRO providers must rethink how they partner, plan and invest.

At Aeras Aviation, we believe progress is built on shared ambition. We're committed to challenging outdated models, driving innovation and doing our part to create a more agile, intelligent and human-centred aviation ecosystem.

MRO Europe 2025 is more than a milestone on the calendar – it's an opportunity to lead.

Join Aeras Aviation at Stand 1842 during MRO Europe 2025, or contact info@aerasaviation.com to connect with Demetrios Bradshaw and the Aeras Aviation team ahead of the event.

PARIS AIR SHOW 2025 ROUND-UP

The Paris Air Show returned in June with a wave of announcements. Here's a look at some of the highlights

ENGINE ORDERS

Riyadh Air orders 100 Trent XWB-97 engines

Saudi Arabia-based start-up airline Riyadh Air signed a deal with Rolls-Royce for 100 Trent XWB-97 engines to power its fleet of up to 50 Airbus A350-1000s.

The deal was signed in conjunction with a Memorandum of Understanding (MoU) for Rolls-Royce's comprehensive TotalCare service that will cover the health and maintenance of the engines.

Rolls-Royce's Rob Watson said: "The Trent XWB-97 is an incredible engine and our TotalCare package will provide operational certainty across Riyadh Air's fleet.

"The engine will benefit from the £1 billion investment we're making to the Trent engine family that improves their durability and efficiency across all operations. We look forward to supporting these new aircraft as they enter service."

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Lukas Wunderlich/Adobe Stock

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APU SUPPORT

EPCOR and Kuwait Airways renew Boeing 777 APU support

EPCOR BV, the Air France Industries KLM Engineering & Maintenance (AFI KLM E&M) centre of excellence for the repair of Auxiliary Power Units (APUs) and pneumatic components, renewed its long-standing maintenance agreement with Kuwait Airways, covering GTCP331-500 APUs installed on the airline's Boeing 777 fleet.

The new three-year agreement reaffirms a robust collaboration between the two aviation leaders and reflects AFI KLM E&M's continuing role as a trusted partner for mission-critical engine, APU and component support.

At the time of the announcement, five APUs are already undergoing maintenance at the renewed EPCOR facility based at Schiphol-Rijk, the Netherlands, with a steady pipeline of additional units anticipated over the course of the agreement.

EPCOR's Rob van de Graaf said:"This APU programme is a strong example of how we deliver value through technical depth, flexible support and transparent collaboration."

Kuwait Airways' Osama Al-Obaidan said: "We view EPCOR and AFI KLM E&M not only as technical partners, but also as strategic allies in achieving our reliability and performance targets."

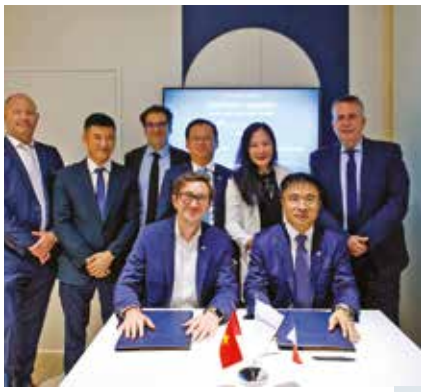
TECHNOLOGY

Safran data platform to power predictive maintenance at Vietnam Airlines

Vietnam Airlines and Safran Electronics & Defense signed a Memorandum of Understanding for the implementation of the Cassiopée Alpha flight data analysis platform, covering the period 2026–2030.

It builds on a two-decade collaboration between the companies and will see Vietnam Airlines replace its existing Cassiopée AGS software with the new all-in-one solution.

Designed to support flight safety, operations, maintenance and data science, Cassiopée Alpha offers modular tools for both on-premises and SaaS



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environments. Features include the 'Pilot in the Loop' module for crew self-debriefing and the 'Tech Profile' module for predictive and reactive maintenance.

Vietnam Airlines' Le Duc Canh said: "This agreement marks an important step forward in our ongoing digital transformation journey. By integrating advanced data analytics and predictive maintenance capabilities, the solution will not only help us meet the highest international safety standards but also optimise fleet performance and reduce environmental impact."

ENGINE MRO

Air Austral and AFI KLM E&M sign engine support deal

French airline Air Austral signed up Air France Industries KLM Engineering & Maintenance (AFI KLM E&M) to provide engine support, including spare engine availability and repair, for its fleet of three Boeing 777 aircraft.

The new deal is an extension and reinforcement of AFI KLM E&M's comprehensive maintenance support agreement with Air Austral, underscoring AFI KLM E&M's commitment to providing end-to-end technical services tailored to meet the evolving needs of airline operators worldwide.

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Air Austral's Boeing 777 fleet plays a pivotal role in the airline's long-haul operations – most notably on the flagship route between Paris Charles de Gaulle (CDG) and Réunion Island (RUN).

As part of this agreement, AFI KLM E&M will ensure the availability of a spare GE90-115 engine. The agreement also includes access to bare engine accessories during the entire period of engine shop visits, allowing Air Austral to optimise its planning and reduce downtime during scheduled maintenance events.

"This agreement marks an important step forward in our ongoing digital transformation journey"

robin/Adobe Stock

5

TECHNOLOGY

Southwest boosts runway safety with Honeywell tech rollout

Southwest Airlines announced it is to roll out Honeywell's SmartRunway and SmartLanding software across its entire Boeing 737 fleet to enhance runway safety and pilot situational awareness.

The software is being activated through the airline's existing Honeywell Enhanced Ground Proximity Warning System (EGPWS), which is already installed on all aircraft. To date, more than 700 Southwest Airlines aircraft have been equipped.

SmartRunway and SmartLanding provide pilots with aural and visual alerts during taxi, take-off and landing, helping prevent unstable approaches and potential runway incidents. The system issues warnings if an aircraft is moving too fast, flying too high on approach, or aligning with the incorrect runway.

Certified for most Boeing and Airbus models – as well as various business jets – the technology aims to reduce the risk of runway excursions and misalignments by alerting crews early in the chain of events that could lead to an accident.

Andrew Watterson from Southwest Airlines said: "Safety is at the heart of everything we do at Southwest. Honeywell's SmartRunway and SmartLanding software will provide our pilots with enhanced situational awareness to ensure the highest level of safety while operating on runways throughout the network."

1. Riyadh Air and Rolls-Royce sign a deal for 100 Trent XWB-97 engines
2. Kuwait Airways Boeing 777
3. Marking the agreement between Vietnam Airlines and Safran
4. Air Austral Boeing 777
5. Southwest Airlines Boeing 737-MAX8 landing at Phoenix Sky Harbor Intl. Airport

Embraer

2

"The E190-E2 will deliver greater efficiency and reliability to our regional fleet"

COMPONENT SUPPORT

Virgin Australia joins Embraer's Component Pool Program

Virgin Australia signed a multi-year contract to join Embraer's Component Pool Program to support the eight E190-E2s that will soon enter its fleet.

Through the programme, Virgin Australia will tap into Embraer's technical expertise and significant component repair service provider network.

Alistair Hartley from Virgin Australia Group said: "The E190-E2 will deliver greater efficiency and reliability to our regional fleet. Joining Embraer's Pool Program strengthens that advantage, giving us robust maintenance support at our new, purpose-built hangar at Perth Airport."

1

LANDING GEAR

Safran and Revima extend landing gear collaboration

Revima signed a long-term contract with Safran Landing Systems to support Revima's landing gear repair and overhaul facilities in France and Thailand.

The contract includes spare parts, access to OEM technical publications and engineering support for the maintenance of landing gear across a wide range of Airbus aircraft.

The agreement reinforces the firms' collaboration around historic programmes such as the Airbus A320ceo and A330, while paving the way for the future with the landing gear models equipping the Airbus A320neo and A330neo as well the main landing gear for the Airbus A350-900.

Lufthansa Technik AERO Alzey (LTAA)

3

Revima Group's Olivier Legrand said: "We are delighted to extend our long-time partnership with Safran Landing Systems, in support of the significant activity we enjoy on multiple Airbus platforms and of the new generation landing gears that gradually require MRO.

"The close and strong relationship with Safran Landing Systems goes back many years and we look forward to reinforcing it further."

gordzam/Adobe Stock

4

"Air Montenegro has shown strong growth during the last year and we are happy to be part of this momentum"

ENGINE MRO

LTAA extends engine MRO agreement with P&W Canada

Lufthansa Technik AERO Alzey (LTAA) renewed its Designated Overhaul Facility (DOF) licences with Pratt & Whitney Canada for the MRO of PW100 and PW150 engine types.

The licence renewal encompasses the approximately 3,300 PW100 and 850 PW150 engines worldwide, which primarily power regional aircraft such as the ATR 72 and the De Havilland Canada DHC-8-400 (Q400).

The contract marks the continuation of a business relationship that began 37 years ago, reflecting the long-standing collaboration between LTAA and Pratt & Whitney Canada.

LTAA's Rubin Siddique said: "As a Designated Overhaul Facility, we are committed to upholding the high standards set by Pratt & Whitney Canada. We greatly appreciate the trust and confidence placed in our long-standing relationship and look forward to continuing this successful collaboration."

COMPONENT SUPPORT

Air Montenegro joins Embraer's Component Pool Programme

Air Montenegro signed a multi-year agreement to join Embraer's Component Pool Programme, covering its Embraer E195 fleet.

Through the programme, Air Montenegro will tap into Embraer's technical expertise and significant component repair service provider network.

Carlos Naufel rom Embraer Services & Support said: "Air Montenegro has shown strong growth during the last year and we are happy to be part of this momentum, by providing more capacity and world-class services. Our goal is to keep the E-Jets ready to fly and to keep strengthening our successful partnership for the years to come."

1. (L) François Bastin, Safran Landing Systems, and (R) Olivier Legrand, Revima Group
2. Virgin Australia E190-E2
3. (L-R) Irene Makris from Pratt & Whitney Canada, Rubin Siddique from LTAA and Judith Wedlich-Blender from LTAA
4. Air Montenegro Embraer E195

PREDICT. PREPARE. PERFORM.

As base maintenance evolves, Gama Aviation's **Paul Kinch** tells *MRO Management* that the company is investing in what matters: systems, standards and the people behind them

As base maintenance operations across the globe come under pressure from rising aircraft complexity, tighter turnaround expectations and a surge in data-driven predictive maintenance, Gama Aviation is positioning itself at the forefront of change.

With a wide-reaching MRO footprint across the UK and growing international presence, the company is investing strategically in infrastructure, leadership and digital systems to strengthen its core capabilities and prepare for what's next.

At the helm of this transformation is Paul Kinch, managing director of Gama Aviation's MRO division, who brings more than 30 years of engineering and operational expertise to the role.

Under his leadership, Gama Aviation has taken decisive steps to enhance its base maintenance offering – balancing predictability with flexibility and modernisation with pragmatic execution.

Building a smart base for complex aircraft

As aircraft technologies and mission requirements evolve, MRO providers must rethink what it means to support base maintenance at scale. For Gama Aviation, this has meant going beyond hangar expansion and focusing on the operational ecosystem as a whole.

"We've focused on building the right environment – both in terms of physical infrastructure and operational systems – to support increasingly complex airframes and mission demands," says Kinch.

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"Modern aircraft require not only deeper technical capabilities, but more efficient integration across departments. That's where our investment strategy comes in."

Over the past year, the company has delivered significant upgrades to its base maintenance facilities, prioritising tooling, task tracking and productivity-enhancing digital systems. "Base maintenance isn't just about hangar capacity anymore – it's about creating an ecosystem that supports accurate, efficient delivery every time," he adds.

Consistency at scale across the UK

Operating from multiple UK locations – Bournemouth, Farnborough, Glasgow, Luton, Staverton, Norwich and Oxford – Gama Aviation has established a networked approach to quality and compliance. Ensuring that standards remain uniform across such a wide geography takes more than documentation; it requires a strong operational culture and dedicated leadership.

"Base maintenance isn't just about hangar capacity anymore – it's about creating an ecosystem that supports accurate, efficient delivery every time"

Paul Kinch, managing director, Gama Aviation

"Consistency starts with culture," says Kinch. "We've set clear operational expectations across every site and backed that up with structural investment. Every base works to the same quality frameworks, audit criteria and regulatory standards."

In the past 12 months alone, the company has appointed new leadership roles including a head of compliance, tooling manager, component workshop manager, training manager and Corridor specialist – each focused on a core element of the maintenance process. These appointments, combined with a centralised approach to digital tooling and documentation, ensure that engineers are working from a common set of technical data and compliance baselines.

"That's essential in a multi-site operation like ours," Kinch notes. "It means engineers are always working from the same source of truth – no matter the aircraft or the hangar."

Delivering speed without sacrificing safety

As customers demand shorter maintenance windows, the MRO industry faces a tightrope walk between speed and safety. For Gama Aviation, the solution lies in intelligent planning, well-sequenced workflows, and ensuring that critical assets – both human and mechanical – are available when needed.

"We don't chase speed for the sake of it – what we aim for is predictability," says Kinch. "Tooling is a good example. Delays often happen due to poor tooling availability or calibration issues. So, we've invested in a centralised tooling strategy, supported by a dedicated tooling manager. That alone has already improved the readiness and availability of key assets across sites."

Another step forward has been the addition of a Corridor specialist role to oversee job card sequencing and task flow – removing bottlenecks and helping engineers maximise productivity. "When turnaround times tighten, process discipline becomes a competitive advantage," he adds.

Corridor – an aviation-specific enterprise software application – underpins this effort by streamlining task management, eliminating manual processes and improving information flow across the organisation.

▲ Paul Kinch, managing director, Gama Aviation

1. Gama Aviation's MRO hangars are equipped with advanced tooling, diagnostics and testing equipment

Preparing for a predictive future

The rise of predictive maintenance and data-driven insights is set to transform base maintenance over the next decade. While real-time monitoring enables earlier fault detection, it also demands that MRO providers become far more proactive in their planning.

"Base maintenance won't go away – but it will evolve," Kinch explains. "Operators are already using real-time data to identify faults earlier and plan maintenance windows more efficiently. That changes how MROs need to operate. We'll move from reacting to issues to pre-empting them."

According to Kinch, this shift places new demands on MROs to interpret fleet data and anticipate maintenance triggers. "The big shift will be around data interpretation. MROs will need to understand fleet trends, fault histories and predictive triggers – so we can get the right people and parts ready ahead of time," he says. "What won't change is the need for skilled hands, proper tooling and hangar space. But how we plan the work will look very different."

Tailoring maintenance to mission-specific needs

Operators today often require support beyond standard maintenance programmes – particularly those with special mission, medevac or charter aircraft. Gama Aviation, with its diverse client base, has embedded flexibility into its MRO approach while maintaining regulatory discipline.

"Flexibility is part of our DNA, but so is process," says Kinch. "The key is being able to adapt within a controlled, compliant framework."

Rather than building fully bespoke programmes, the company offers a scalable structure that accommodates varied operational profiles. "We work closely with our aircraft management teams to anticipate client needs, reduce downtime and plan support around their missions, not just our schedule," Kinch explains. "That ability to be operationally aware – to understand the mission profile and respond accordingly – is increasingly what sets base maintenance providers apart."

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"The rise of predictive maintenance and data-driven insights is set to transform base maintenance over the next decade"

Staying grounded while moving forward

In a competitive landscape, the MROs that thrive will be those who deliver consistently and adapt intelligently. For Kinch, the path forward is clear.

"The biggest opportunity is reliability," he says. "Operators want someone who turns the aircraft around on time, keeps them informed and avoids surprises. If you can do that consistently, you'll earn long-term trust."

But risks remain – especially for those slow to evolve. "The biggest risk is failing to adapt. This is a fast-moving sector. Aircraft are evolving. Client expectations are growing. And compliance is getting tighter," he warns. "At Gama Aviation, we're not chasing hype. We're focused on doing the basics better – and investing in areas that make a real operational difference."

In an industry often defined by speed and precision, it's easy to overlook the human elements that keep aircraft flying safely. But as Gama Aviation shows, the future of base maintenance lies not just in smarter tools or sharper data, but in the people, processes and principles that hold it all together. As the pace of change accelerates, the challenge for MRO providers won't just be keeping up – it will be staying grounded in what really matters.

1. Gama Aviation offers a wide selection of UK CAA and EASA MRO services
2. Gama Aviation ensures that clients benefit from unmatched expertise and reliability

AVIATION business news

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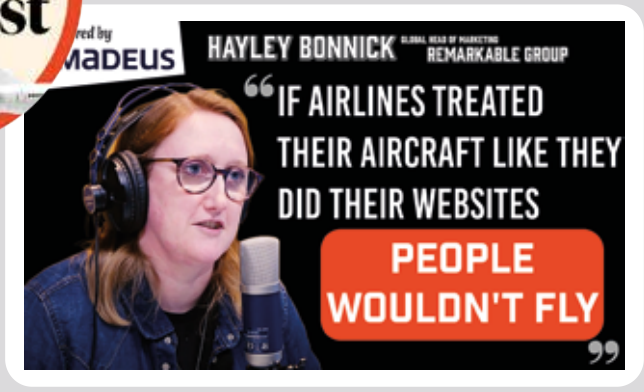

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Q&A

For more information on Armac Systems, visit **armacsystems.com**

Collaboration & transparency

Ahead of the first-ever APAC edition of the *Predictive Aircraft Maintenance (PAM) Conference* in Singapore on September 15-16, *MRO Management* asked **Micheál Armstrong** from event sponsor Armac Systems for his thoughts on the landscape of predictive maintenance

> **Greater collaboration is needed around technology integration and data-sharing**

MICHEÁL ARMSTRONG
chief executive, Armac Systems

In an ideal world, what is your vision for how predictive maintenance and innovation will transform MRO activities?

MRO is intrinsically uncertain. Uncertainty can be reduced by removing some of the probabilistic maintenance needs and converting them to short-term planned events through the use of predictive maintenance. This shift would enable proactive planning for resources, workforce, maintenance slots, tooling and materials rather than reacting to issues as they arise, thereby reducing costs and avoiding disruption.

Much of the current inventory demand in MRO is driven by aircraft utilisation patterns or unexpected findings during scheduled and unscheduled maintenance. If predictive maintenance can convert a portion of this demand into predictable, short-term planning, we'll be better positioned to prepare for specific maintenance events.

However, predictive maintenance alone isn't enough. To truly unlock its benefits, it must be tightly integrated with supply chain planning and optimisation. Only then can we ensure that materials are available when needed, in a cost-effective manner, and without creating downstream delays.

What do you see as the biggest hurdles the industry must overcome to fully realise the potential of predictive maintenance?

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There are several key hurdles. First, there's uncertainty beyond the scope of available data – issues like bird strikes, undetectable internal fatigue, weather damage or heavy landings will always be hard to predict. These risks must be managed separately.

Another challenge is the paradox of high reliability: components fail so rarely that there isn't enough data to train accurate machine learning models. While there is research into ML for sparse data, it will never match the accuracy of models built on large datasets.

Validating predictions is also difficult. Ideally, we'd use control groups that run to failure to assess predictive accuracy, but that's rarely practical with low failure rates.

russell102/Adobe Stock

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1. The industry needs to share more data to not only improve predictive analytics but also increase transparency
2. Finnair effectively applied Armac Systems' RIOsys inventory optimisation software

Finally, to confirm whether predicted removals are justified, we need repair cycle feedback to rule out no fault found (NFF) outcomes or unrelated issues – something that requires better integration across the maintenance and repair chain.

Where does Armac Systems fit within the broader landscape of predictive and innovative aircraft maintenance activity?

Armac Systems focuses on ensuring that the right parts are available when needed – crucial, given that parts make up about half of all maintenance costs.

Our RIOsys software is a strategic and tactical decision support system (DSS) that uses MRO IT system data and tacit knowledge to optimise material planning and prioritisation.

We continuously forecast and adjust target inventory levels as operations evolve – for example, when maintenance planning introduces new tasks or schedules work based on historical findings. On the tactical side, we help make real-time decisions about when to buy, stock, transfer, exchange, expedite, defer or stagger parts.

Our forecasts blend planned and probabilistic demand, the latter driven by utilisation, task findings and line maintenance needs. Predictive maintenance offers the opportunity to convert some of that probabilistic demand into short-term planned demand. When such insights are available, we integrate them into the planning process – improving readiness, avoiding costly disruptions like AOG events and ultimately keeping aircraft in service.

What collaborative efforts or partnerships do you believe are essential to accelerate progress in predictive maintenance across the aviation ecosystem?

Greater collaboration is needed around technology integration and data-sharing. Aviation maintenance operates within one of the most complex and interdependent supply chains, relying heavily on cross-company cooperation. Yet, system interoperability and standardised data exchange are still lacking.

Many organisations hesitate to share even commercially non-sensitive data, fearing it could shift competitive dynamics or lead to monopolies. To move forward, we need open APIs, non-proprietary data exchange frameworks and anonymised maintenance data sharing. These would not only improve predictive analytics but also increase transparency across the supply chain.

Crucially, predictive maintenance providers should compete on algorithms and functionality – not on who controls the data. While better data improves predictive insights, the broader benefit lies in enabling more proactive planning and supply chain optimisation across the entire ecosystem.

POWER TO THE PEOPLE

As airlines plan their in-seat power strategies for the coming decade, they must navigate an increasingly complex landscape of passenger devices and evolving technological demands. IFPL's Karen Rogers tells us more

Whilst smartphones remain the primary device for an almost infinite range of entertainment and communication activities on board, travellers are also bringing a growing array of additional power-hungry devices.

Tablets for in-flight entertainment, laptops to support business professionals and a growing prevalence of handheld gaming devices further expands the range of power requirements airlines must accommodate.

This increasing demand presents a critical challenge: designing an in-seat power system that balances efficiency, weight, cost and scalability.

What is needed is a well-engineered solution that prevents excessive strain on an aircraft's power infrastructure, avoids any unnecessary weight penalties and ensures seamless passenger satisfaction.

By adopting a strategic approach, airlines can future-proof their cabins, optimising power distribution without compromising on operational efficiency.

Another factor to consider is passenger expectation. If they board with their tablet at 42% battery, use it throughout the flight and arrive with the same charge level, their perception of the power system will be that it is effective.

To maintain power levels, typically:

- Smartphones such as iPhone15, Samsung Galaxy S24 or a Google Pixel 8 need 3-6W
- Tablets such as an iPad Air, Samsung Galaxy Tab or Amazon Fire HD need 6-12W
- Ultrabooks and laptops such as the MacBook Air, Dell XPS 13 or Lenovo ThinkPad X1 Carbon need 30-45W
- Gaming laptops such as the MacBook Pro 16", Razer Blade 15 or Dell G5 need 60-100W
- Handheld gaming devices with high-resolution graphics such as an MSI Claw 8 AI+, Lenovo Legion Go or Nintendo Switch (OLED) need 20-60W.

These values reflect the power required to sustain battery levels during typical usage, rather than to increase charge from a low battery state.

Airlines need to understand their passenger demographics and onboard activities to determine the appropriate power system requirements. If internet connectivity is not available on board, some devices will have limited functionality, which will lead to a reduced overall power demand.

For example, power consumption by device activity is shown in Table 1.

Activity	Phone	Tablet	Laptop	Handheld
Idle, screen on, Wi-Fi off	2-4W	2-6W	10-20W	6-15W
Web browsing/messaging	3-5W	5-10W	20-30W	
Streaming video/audio	4-6W	8-12W	30-50W	
Gaming	5-9W	10-15W	60-100W	20-60W

▲ Karen Rogers, marketing and admin manager, IFPL

These are broad ranges driven by many factors, including screen brightness, connectivity and content.

What is USB-PD?

USB Power Delivery (USB-PD) is a fast-charging protocol used over USB Type-C connections that enables higher power transfer compared to traditional USB Type-A related charging standards. It is commonly used for charging smartphones, tablets, laptops, monitors and other high-power devices.

The USB-PD protocol follows a structured communication and negotiation process. When a device (e.g. a tablet) is plugged into a USB-PD charger, it communicates with the charger. The charger sends a message listing all supported available voltage and current options (e.g., 5V/3A, 9V/3A, 20V/3A, etc). The device evaluates its power needs based on its battery state, temperature and input limits and then sends a 'request message' choosing the most appropriate voltage and current.

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> **“Airlines need to understand their passenger demographics and onboard activities to determine the appropriate power system requirements”**

In practical terms this means that devices can charge with a variety of different available power levels. A tablet may be sold with a 30W charger that charges from zero to full battery in two hours, but the same tablet will maintain battery level or happily charge with a lower power charger; it will just take longer.

How many passengers use each device type?

Power requirements on board can vary significantly depending on the airline type, passenger profile and route. Full-service carriers catering to first and business class passengers typically experience higher demand for 60W power, driven by frequent laptop use.

This demand tends to diminish with hybrid or mid-tier airlines and drops further among low-cost and ultra-low-cost carriers, where limited seat pitch often restricts laptop use to exit rows or premium seats offering extra legroom.

Additional factors also play a role in shaping onboard power usage. The duration of the flight and the availability of inflight Wi-Fi – particularly whether the aircraft is equipped with external internet connectivity – can significantly influence how passengers use their devices. Power demand is also affected by whether Wi-Fi is complimentary or charged as an added service.

In terms of specific device usage, mobile phones are nearly universal across all cabin classes, making USB outlets a basic requirement for every seat. Tablets are commonly used, particularly in economy and premium economy, while laptops are most prevalent in business and first class. On flights aimed at families, especially those with children or teenagers, there is typically a higher number of gaming consoles in use, further influencing power outlet demand.

Designing a scalable in-seat power system

A future-proof onboard power system should be designed to meet the evolving needs of all passengers while remaining

1. Tablets are commonly used, particularly in economy and premium economy
2. Cartridge technology

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adaptable over time. At its core, the system must offer basic power provision suitable for charging phones and tablets across the entire cabin. It is essential to consider the ongoing cost of replacement outlets due to the inevitable ongoing customer damage. The majority of passengers still travel with USB-A cables – a trend likely to continue for many years. This is best addressed by installing a combination of USB-A and USB-C outlets. These can be configured either as one outlet per seat or on a two-outlets-per-triple-seat (n-1) basis, depending on the seating layout.

To ensure sufficient performance, the minimum power delivery should be set at 10W for USB-A and 15W for USB-C. As technology progresses and USB-C becomes more widely adopted, modular outlets that allow airlines to upgrade from USB-A to USB-C will provide critical flexibility without requiring full hardware replacement.

In addition, the ability to selectively offer higher-power USB-C charging – either based on cabin class or through dynamic smart power management across the aircraft – allows carriers to tailor the service to passenger expectations and device demands. Finally, a modular system should support scalable upgrades in power capacity. This enables airlines to increase output as passenger needs grow, while initially keeping weight and installation costs to a minimum.

Smart power management: avoiding overload minimising weight and cost

To minimise weight and cost and prevent excessive power draw, airlines can implement dynamic power allocation, such as:

- Power-sharing technology – the system should constantly monitor the total demand for power and redistribute available power dynamically

> **“A future-proof onboard power system should be designed to meet the evolving needs of all passengers while remaining adaptable over time”**

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- The system should be flexible and allow seat-based prioritisation. For example, business and first-class seats can be assigned ‘guaranteed 60W’, while economy seats can share what is remaining
- Adopting the industry standard USB-PD protocol.

Conclusion

As the demand for in-seat power grows, airlines must strategically plan their power systems to meet both current and future passenger needs.

A thoughtful balance of efficiency, scalability and smart power management will not only ensure a seamless experience for passengers but also contribute to the long-term sustainability of aircraft operations. By implementing modular systems with dynamic power distribution, airlines can remain adaptable to evolving technologies, while keeping costs and weight to a minimum.

As we look forward to the next decade, it’s clear that the future of in-seat power will be defined by systems that evolve with passenger expectations, supporting a connected, comfortable and efficient flying experience.

1. Passengers choose to use their mobile devices on board for in-flight entertainment
2. Future-proofed outlets

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EASTERN EUROPE: A REGION ON THE RISE

With a new facility in Šiauliai, Lithuania, and a vertically integrated business model, Airhub Aviation's **Oleg Novak** tells *MRO Management's* Craig Waters that the company is betting on flexibility, full-cycle services, and regional momentum to reshape global MRO dynamics

As aircraft operators continue to stretch the lifespan of their fleets amid supply chain pressure and OEM delays, capacity at established MRO hubs is nearing its limits. That's created new opportunities for new players – and Airhub Aviation intends to seize the moment.

Backed by GetJet Aviation Holdings, Airhub Aviation has launched a new MRO facility in Šiauliai, Lithuania, positioning itself as a full-service provider for the entire aircraft lifecycle.

According to Oleg Novak, managing director of Airhub Aviation, this is not just about filling a gap in infrastructure – but about redefining what Eastern Europe can offer in the aviation space.

"Šiauliai was the right place and time for our MRO facility due to a combination of global industry trends and local advantages," Novak explains. "We're seeing strong demand for mid-life and end-of-life aircraft support, but existing facilities are reaching capacity. Our site benefits from 24/7 operations, no curfews, and a cost-effective setup – all critical advantages for our clients."

Putting Eastern Europe on the MRO map

While Eastern Europe has traditionally played a supporting role in global aviation, Airhub Aviation is working to change that narrative.

"Our facility helps establish the region as a credible competitor in the global MRO market," says Novak. "We're the only provider in Northern-Eastern Europe offering new capacity with proven operational experience. That sets us apart."

Indeed, recent growth figures back up this ambition. The region's MRO market is projected to reach 3% of global share by the end of the decade, outpacing global average growth rates. With older aircraft having had their leases extended post-pandemic, Novak believes a "wave of redeliveries is coming", creating further openings for independent providers.

Building the 360° model

At the heart of Airhub Aviation's strategy is its vertically integrated, 360° service approach. More than just MRO, the company covers every stage of the aircraft lifecycle.

"Our core strength lies in asset management," Novak says. "But by integrating operations under one roof, we can reduce downtime, extend asset lifespan and preserve value more effectively. It's all about consistency and control."

To support its ambitious model, the company has invested in digital tools,

"WE AIM TO BE THE MOST TRUSTED DELIVERY AND REDELIVERY SITE IN NORTHERN-EASTERN EUROPE, AND THE GO-TO MARKETPLACE FOR ASSET TRADING"

***Oleg Novak**, managing director, Airhub Aviation*

including a proprietary Power BI platform for visibility across MRO, parts trading and repair. Novak says these technologies are key to futureproofing the business in a fast-evolving industry.

"We're constantly refining the model, adopting new tools and fine-tuning our internal processes. That allows us to be more adaptable, cost-efficient and dependable for our clients."

Transition expertise as a differentiator

As airlines and lessors reshuffle fleets post-pandemic, Airhub Aviation sees an opportunity to support complex aircraft transitions. With extended OEM lead times and slower replacement cycles, smart technical decisions are crucial to maximising asset value.

"Our asset management strategy is built around residual value – whether that's green-time optimisation, airframe and engine separation or prepping for end-of-life scenarios," says Novak. "Our background in ACMI and leasing gives us a value-driven approach that resonates with clients."

He adds that lessors and airlines aren't just looking for basic checks anymore – they need a partner that understands the full transition lifecycle and can manage multi-party coordination with precision. "We aim to be the most trusted delivery and redelivery site in Northern-Eastern Europe, and the go-to marketplace for asset trading," he notes.

From newcomer to proven partner

Despite being a relative newcomer in the MRO world, Airhub Aviation is no stranger to complex aircraft projects. In its first operational season, the company completed more than 17 maintenance inductions – including seven heavy checks on Airbus A320ceo aircraft.

Beyond that, its team has handled over 50 converted freighters, performed full CAMO and technical reviews for diverse aircraft types, from Boeing 737 classics to Airbus A330-900s, and now supports eight CAMO clients and five line stations providing component services for over 100 customers.

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"We may be new, but we're not untested," says Novak. "We've proven ourselves with GetJet Airlines and delivered results for lessors and airlines across Europe. Our recent delivery check for Ukraine's SuperNova Airlines marked the beginning of a long-term partnership. We also completed deliveries for our group airlines, including two aircraft and several engines."

Carving an identity

Part of GetJet Aviation Holdings, Airhub Aviation has a strategic edge but is intent on building its own identity as a technical services powerhouse.

"GetJet operates the assets and we maintain and manage them," Novak explains. "It's a natural split that creates synergies across the group. At the same time, we're positioning Airhub Aviation as a standalone leader in maintenance and asset management."

This dual-track strategy allows the group to cross-sell services, offer bundled solutions to airline customers and streamline complex projects.

1. Airhub Aviation maintenance teams are experienced in both Airbus A320 family and Boeing 737 NG types.
2. Airhub Aviation's in-house teams handle complex maintenance projects

Leading Eastern Europe's aviation evolution

Looking ahead to 2030, Novak is optimistic about the role Eastern Europe can play in global aviation – especially if providers like Airhub Aviation continue to deliver quality and agility.

"The region has shown resilience, even in the face of geopolitical challenges," he says. "Now it's about turning that resilience into long-term capability."

To lead the shift, Airhub Aviation is focused on operational excellence, tailored solutions and capitalising on the market's need for reliable transition and teardown services.

"Our ambition is to be one of the region's top providers," Novak concludes. "We want to help airlines operate more efficiently and get the most out of their assets, and in doing so, we hope to put Eastern Europe firmly on the MRO map."

Green Sky

AFRA

Setting benchmarks

With aircraft retirements expected to surge, ecube is scaling smart solutions to meet tomorrow's sustainability demands

> **In 2024 alone, we enabled nearly 73,000 components to return to service**

STEVEN TAYLOR
chief commercial officer, ecube

▲ ecube's St Athan facilities

At ecube, our mission has always been simple yet ambitious: to set the benchmark for sustainable, end-of-life aircraft management.

As the aviation sector accelerates its efforts to decarbonise and decouple growth from environmental impact, I'm pleased to share how we're delivering real-world progress through circular economy initiatives across our UK, EU and US locations.

Since our last Green Sky entry in July 2023, a major development has reshaped our platform – we're now proudly part of Unical Aviation. Joining the Unical Group strengthens our global capabilities and accelerates our sustainability journey.

Focusing on ecube specifically, we recently completed a landmark project with British Airways at our UK HQ in St Athan, measuring each stage of the disassembly process of an Airbus A320 to achieve an industry-first documentation of the reuse, repurpose and recycle rate of 83%. This sets a credible baseline for aircraft circularity for all disassembly providers to measure and improve.

In Europe, our new facility in Castellón, Spain is now open – a purpose-built 25,833 sq ft building designed to boost throughput and streamline logistics. With dedicated zones for workshops, storage and parts flow, this expansion significantly enhances our service offering and reinforces our status as the leading partner for end-of-life aircraft solutions in the region.

Meanwhile in Coolidge, Arizona, our US operations marked a milestone by disassembling the 50th aircraft, underscoring the site's rapid growth and vital role in serving Americas customers with full disassembly, component recovery and long-term storage – maintaining our global standards of safety, quality and sustainability.

Across all locations, the momentum is unmistakable. In 2024 alone, we enabled nearly 73,000 components to return to service and repurposed or recycled more than 2,000 tonnes of material – transforming waste into value. Our teams increased the average parts removed per aircraft by 17% year-over-year, while our Plane Reclaimers team continued to pioneer creative upcycling solutions for retired materials.

Looking ahead, we're actively investing in technologies and infrastructure to shape the next era of sustainable aviation, including exploring blockchain-based traceability which promises a secure, auditable pathway for tracking used serviceable material (USM) from aircraft removal to reinstallation – aligning with evolving customer expectations and future regulatory requirements.

We're also preparing for scale. With the global fleet projected to double over the next two decades – and over half of that growth linked to new aircraft deliveries – the pace of retirements will rise sharply. With a growing presence in the UK, EU and US, along with expanded processing capacity, we're building a global platform equipped to meet the rising volume, complexity and sustainability demands of aircraft transitions, disassemblies and material recovery.

At ecube, we're not just managing aircraft retirements – we're redefining what sustainable aviation looks like for the future.

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Why We Do It:

We partner with airlines, MROs, and lessors to deliver flexible, cost-effective solutions that minimize downtime, support fleet transitions, and address real-world operational challenges. Our customer-first approach means we listen, adapt, and customize every solution - keeping your fleet flying and your operations running smoothly.

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